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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Kevin L. DAVIS

Art unit:2855

Serial No. 10/822,075

Examiner: DAVIS, Octavia

Filed: April 12, 2004

For: NON-CONTACTING CRACK SENSOR

AMENDMENT

Commissioner for Patents

P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to USPTO dated June 10, 2005, please amend the application as follows:

IN THE CLAIMS:

Claims 1-6 (canceled)

Claim 7. (currently amended).[The] A sensing system [ as described in claim 1] for detecting cracks and structural integrity of material, comprising:

a material under test;

an insulating substrate mounted on said material;

a test pattern deposited on said insulating substrate, forming an element of an oscillator for transmitter to radiate a radio frequency RF signal, and

a remote sensing circuit to detect any deviation of the received signal from said transmitter as a measure of the presence of any crack in the material under test,

wherein said pattern is a bank of resistors and any breakage of said resistors due to propagation of a crack in the underlying material under test amplitudes-modulates the oscillator.

Claim 8. (original) The sensing system as described in claim 7, wherein the resistors are used to determine the quality factor of a LC tank circuit.

Claim 9. (original) The sensing system as described in claim 8, wherein the signal strength of the transmitter depends on the integrity of the resistors.

Claim 10. (original) The sensing system as described in claim 9, wherein said remote sensing circuit is a detector, which can demodulate both FM signal and AM signal.

Claim 11. (canceled)